



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁷ : G05B 19/418	A1	(11) International Publication Number: WO 00/20939 (43) International Publication Date: 13 April 2000 (13.04.00)
(21) International Application Number: PCT/US99/23379		(81) Designated States: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).
(22) International Filing Date: 6 October 1999 (06.10.99)		
(30) Priority Data: 09/167,063 6 October 1998 (06.10.98) US		
(71) Applicant: PAVILION TECHNOLOGIES, INC. [US/US]; Suite 700, 11100 Metric Boulevard, Austin, TX 78758 (US).		
(72) Inventors: KEELER, James, D.; 12701 Shemya Cove, Austin, TX 78729 (US). PLUMER, Edward, S.; 120 River Road, Georgetown, TX 78628 (US). ELLINGER, Joshua, Brennan; 1622 Waterston Avenue, Austin, TX 78703 (US).		
(74) Agent: HOLLAND, Robert, W.; Baker & Botts, L.L.P., 2001 Ross Avenue, Dallas, TX 75201-2980 (US).		

Published

*With international search report.**Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.*

(54) Title: METHOD AND SYSTEM FOR MONITORING AND CONTROLLING A MANUFACTURING SYSTEM

(57) Abstract

Neural network models interface with distributed control systems associated with a manufacturing facility for performing a manufacturing facility. The neural network models receive measured variables of the manufacturing process to predict process performance data, and provide the performance data on a real-time basis to a communications server. A graphical user interface communicates over a network, such as the Internet or a corporate Intranet, to receive the real-time performance data, including performance metrics such as key performance real-time analyzers, for presentation to aid managers in making decisions regarding the manufacturing process. The communications server also interfaces with an off-line model engine to transfer the neural network model and real-time performance data for analysis on the off-line engine. Object oriented box transforms enhance publication and subscription of the performance data from the neural network models.

